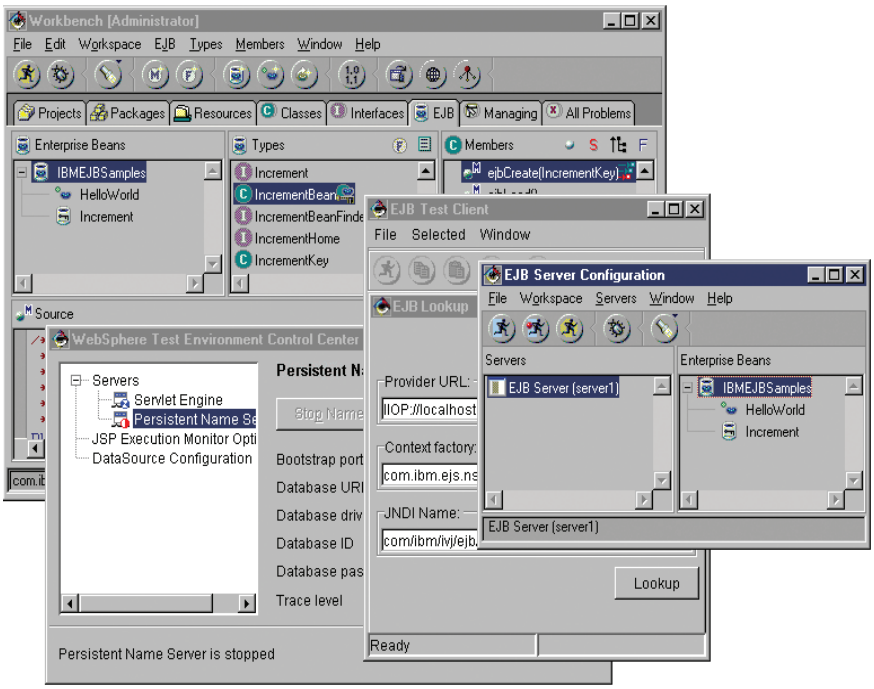
Supports deployment to the J2EE-compatible WebSphere Application Server, Version 4.0.

IBM VisualAge for Java, Version 4.0



The WebSphere Test Environment speeds development, testing and deployment of servlets and EJB components.

The award-winning IBM VisualAge® for Java™ integrated development environment (IDE) has become a standard for Java developers creating e-business applications. VisualAge for Java, Version 4.0 turns the power of Java technology into a competitive advantage by leveraging existing applications and transforming key business processes to build effective e-business solutions.

Leverage existing applications

The fastest way to e-business is to make use of the applications and information that are running your business today. VisualAge for Java allows developers to quickly and easily leverage existing applications to e-business.

Using Enterprise Access Builder for Transactions (EAB) in VisualAge for Java, developers can generate JavaBeans™ and Enterprise JavaBeans™ (EJB) components to extend existing applications, rather

Highlights

- ***Leverage existing applications to gain a competitive advantage***
- ***Transform the power of Java technology into e-business connectivity***
- ***Run with advanced tooling for the WebSphere software platform***
- ***Build with tools that manage the development of large-scale applications***

e® business

than coding from low-level communication application programming interfaces (APIs). EAB can enable connectivity to a wide range of existing back-end databases, applications and transaction servers:

- *IBM CICS® Transaction Servers*
- *IBM Encina®*
- *IBM MQSeries®*
- *IBM IMS™*
- *IBM Host On-Demand*
- *Java components*
- *Common Object Request Broker Architecture (CORBA)*
- *C++*
- *SAP Release 3*
- *J.D. Edwards*
- *PeopleSoft*
- *Oracle Financials*

Visual Age for Java supports Java 2 Enterprise Edition (J2EE™) Connector Architecture (beta), as well as the Common Connector Framework. By providing a consistent architecture and set of tools that enables developers to take advantage of existing applications, VisualAge for Java forms the basis of enterprise connectivity for e-business and facilitates a client-to-services computing model that keeps deployment options open.

Transform your business to e-business

Connecting any client to any information on any server is key to keeping your customers, clients, trading partners and employees connected to your e-business. Support for the development of server-side Java applications and Extensible Markup Language (XML) parsing tools makes VisualAge for Java a logical choice for maximum client connectivity.

VisualAge for Java contains a servlet wizard that generates servlets, JavaServer Pages™ (JSP™) and Hypertext Markup Language (HTML) prototypes, so developers can quickly test their business logic inside the IDE before they deploy to a production server. These server-side Java components can be brought into IBM WebSphere® Studio where they can be enhanced by Web developers using the rich set of tools inside WebSphere Studio to create content, and publish and manage Web sites.

Businesses are under increased pressure to quickly change their business models to respond to customer requests for additional services, products and features. The XML metadata interchange (XMI) toolkit component of VisualAge for Java forms a bridge between the Unified Modeling Language (UML) business models held in Rational Rose and the Java implementation held in VisualAge for Java. The Java code created by the bridge is based on the open, XML standard — enabling tools that support XML to integrate with VisualAge for Java through the VisualAge for Java Open Tools Integrator API.

Manage the development of large-scale applications

Superior code management — the top level of Java programming — is what sets IBM VisualAge for Java apart from the competition. Developers can store other Web development assets (files) inside the VisualAge for Java source control system. The software configuration management (SCM) bridge inside VisualAge for Java provides enhanced integration with external SCM systems, such as Rational ClearCase and Merant PVCS systems. Developers receive visual reminders when an IDE is out of synch, and tooling is provided to update the external SCM system with the code contained in VisualAge for Java.

Easy connection to relational data is essential for any application. VisualAge for Java remains an easy way to create Java applets, applications or servlets that connect to a database through Java Database Connectivity (JDBC™) or take advantage of Structured Query Language for Java (SQLJ) and stored procedures.

Run with advanced tooling for the WebSphere software platform

The IBM WebSphere software platform — a comprehensive set of integrated e-business solutions including VisualAge for Java, Version 4.0 — is a key part of the IBM Framework for e-business, an end-to-end architecture developed by IBM and based on a unified programming model. The EJB specification serves as the integrating component model for the IBM Framework for e-business. VisualAge for Java provides wizards that simplify EJB development by generating the bulk of EJB infrastructure code. Also included is a new XML-based deployment descriptor to assist exporting EJB, Version 1.1 technology-compliant Java archive files (JAR). Using wizards for session and entity beans creation, mapping beans to existing relational data stores and working within an advanced testing environment drastically reduce the time it takes to create, test and deploy EJB.

The VisualAge for Java persistence tooling enables developers to map EJB components to existing relational database schemas. With support for both session and entity beans, developers can generate EJB components from existing database tables or generate database schemas from existing EJB code. VisualAge for Java can also bridge the gap between database administrators and Java developers by providing the means for mapping object models to data models. VisualAge for Java provides support for IBM DB2® Universal Database™, Sybase, Microsoft® SQL Server™ and Oracle databases.

By hosting an IBM WebSphere Test Environment in VisualAge for Java, developers can also pretest EJB components and servlets before deploying to a remote server. Because developers can start and stop the server and the application, and actually change the application on the fly within the VisualAge for Java IDE, they save time by not having to remotely deploy and test the code.

Generation of a test client helps developers to test their server-side EJB components without coding a user interface or waiting for the user interface from the graphic artist. In addition, when the user interface is complete, it functions as a testing tool to determine whether problems exist in the client or the server portion of the application.

VisualAge for Java also simplifies the addition of EJB components to existing applications. By generating access beans, VisualAge hides the EJB remote and home interface and adapts it to the JavaBeans programming model. This simplifies the programming interface between EJB and servlets or JSP by providing a simplified JavaBeans interface to EJB that is recognized by all Java developers. Access beans introduce advanced local caching of EJB attributes, reducing the number of remote calls and providing faster access to EJB.

VisualAge—the tool of choice

For developers new to the Java programming environment, VisualAge for Java, Version 4.0 provides integrated scenarios that help developers learn how to build solutions by customizing prebuilt applications. These ready-to- deploy applications include comprehensive documentation that enables the developer to rapidly build, test and publish e-business applications to the WebSphere software platform. With a full-file view and edit function, VisualAge for Java provides an effective e-business training platform.

WebSphere software platform: building on a firm foundation

VisualAge for Java is part of the IBM WebSphere software platform—a comprehensive set of integrated, award-winning e-business solutions. No matter where you are in the e-business cycle, the WebSphere software platform allows you to grow—at the speed the market demands. Building on this robust platform, you can connect diverse IT environments to maximize your current investments and leverage existing skills. Deliver your core business applications to the Web using industry standards, like Java technology and XML. And create next-generation applications that differentiate your business from the competition.

For more information

To learn more about IBM VisualAge for Java, visit: **ibm.com**/software/vadd or **ibm.com**/software/ad/vajava

To learn more about how IBM WebSphere software platform can help you succeed in e-business, contact your IBM sales representative, IBM Business Partner or visit: **ibm.com**/websphere

To order IBM VisualAge for Java, contact your IBM representative or IBM Business Partner, or call 1 800 IBM-CALL. Or visit: **ibm.com**/shop

© Copyright IBM Corporation 2001

IBM Corporation
Software Group
Route 100
Somers, NY 10589
U.S.A.

Printed in the United States of America
05-01
All Rights Reserved

CICS, DB2 Universal Database, the e-business logo, Encina, IBM, the IBM logo, IMS, MQSeries, VisualAge and WebSphere are trademarks or registered trademarks of International Business Machines Corporation in the United States, other countries or both.

Microsoft and SQL Server are trademarks of Microsoft Corporation in the United States, other countries or both.

Java and all Java-based trademarks and logos are trademarks of Sun Microsystems, Inc. in the United States, other countries or both.

Other company, product and service names may be trademarks or service marks of others.

Printed in the United States on recycled paper containing 10% recovered post-consumer fiber.

G325-5352-00